7.0 MITIGATION MONITORING REPORTING PROGRAM

Lagoon Restoration Project
Mitigation Monitoring and Reporting Program

September 2008

Air Quality
Project Generated Mitigation Measures:

Number	Measure	How Implemented	Implementer	Phase Implemented	Phase Monitored	Who Monitors
AQ-1	The following mitigation measures would reduce impacts from dust generated during construction to less than significant.					
	During clearing, grading, earth moving, excavation, or transportation of cut or fill materials, water trucks or sprinkler systems are to be used to prevent dust from leaving the site and to create a crust after each day's activities cease.	Incorporated into Contract Documents and all Construction Documents (construction specifications Plans.)	Construction Contractor	Construction Phase	Construction Phase	CCBER and D&CS Project Managers
	During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this would include wetting down such areas in the later morning and after work is completed for the day and whenever wind exceeds 15 miles per hour.	Incorporated into Contract Documents and all Construction Documents (construction specifications and Plans.)	Construction Contractor	Construction Phase	Construction Phase	CCBER and D&CS Project Managers

	Soil stockpiled for more than two days shall be covered, kept moist, or treated with soil binders to prevent dust generation.	Incorporated into Contract Documents and all Construction Documents (construction specifications and Plans.)	Construction Contractor	Construction Phase	Construction Phase	CCBER and D&CS Project Managers
AQ-2	The following mitigation measures would reduce health risk to faculty, staff, and students due to exhaust emissions from diesel-powered off-road and on-road construction equipment.					
	1. Heavy-duty diesel-powered construction equipment manufactured after 1996 (with federally mandated "clean" diesel engines) should be utilized whenever possible; 2. The engine size of construction equipment shall be the minimum practical size; 3. The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest practical number is operating at one time; 4. Construction equipment shall be maintained in tune per the manufacturer's specifications;	Incorporated into Contract Documents and all Construction Documents (construction specifications and Plans.)	Construction Contractor	Construction Phase	Construction Phase	CCBER and D&CS Project Managers

	5. Construction equipment operating onsite shall be equipped with two to four degree engine timing retard or pre-combustion chamber engines; and 6. Catalytic converters shall be installed on gasoline-powered equipment, if feasible.					

Biological Resources Project Generated Mitigation Measures:						
Number	**Measure**	**How Implemented**	**Implementer**	**Phase Implemented**	**Phase Monitored**	**Who Monitors**
SN-Mitigation-BIO-1	Implementation of GEO-1 would reduce potentially significant impacts from erosion and sedimentation	Incorporated into Contract Documents and all Construction Documents (construction specifications and plans)	Construction Contractor	Construction	Construction	CCBER and D&CS project managers
SN-Mitigation-BIO-2	Weekly pre-construction surveys shall be conducted within 30 days of ground disturbance (associated with construction or grading) by a qualified biologist to determine if active nests of bird species protected by the Migratory Bird Treaty Act or the CDFG Code are present in the construction zone or within 300 feet of the construction zone (March 1 through August 31). If ground disturbance activities are delayed for more than 30 days past the pre-construction survey, then additional pre-construction surveys shall be conducted such that no more	Incorporated into Contract Documents and all Construction Documents (construction specifications and plans)	CCBER Project Manager in coordination with planners from the Office of Campus Planning and Design (CPD). Qualified biologist	Pre-project and Construction Phase	Pre-Construction Phase	CCBER and D&CS project managers shall ensure survey is performed and compliance with survey results is met.

	than 30 days will have elapsed between the survey and ground disturbance activities. If active nests are found, clearing and construction within 300 feet of the nest (500 feet for raptors) shall be postponed or halted, at the discretion of the biologist, until the nest is vacated and juveniles have fledged and there is no evidence of a second attempt at nesting. Limits of construction to avoid a nest shall be established in the field with flagging, fencing, or other appropriate barrier. The biologist shall serve as a construction monitor during those periods when construction activities will occur near active nest areas to ensure that no inadvertent impacts on these nests occur. The results of the survey(s) and any avoidance measures taken, shall be submitted to the University and the CDFG within 30 days of completion of the pre-construction permits. Fencing of sufficient height and design shall be placed (outside of the bird nesting season) between the edge of the area to be graded and the willow woodland at the bottom of the slope to deter access into this area.		from CCBER will conduct surveys.			
SN-Mitigation-BIO-3	A qualified biologist shall serve as a construction monitor and oversee grading activities. Any reptiles and amphibians that are encountered shall be captured (if it can be done safely) and relocated to a suitable nearby location.	CCBER will provide a qualified biologist to monitor construction activities.	Qualified biologist from CCBER will perform construction monitoring activities	Pre-construction and construction phases	Pre-construction and construction phases	D&CS project manager and CPD planner

CP-Mitigation-BIO-1	All known locations of sensitive species shall be flagged and surveys shall be conducted prior to any disturbance activities in order to locate other potential sites.	CCBER biologist will flag sensitive species and provide a qualified biologist to give an orientation meeting to construction workers	CCBER in coordination with planners from CPD	Pre-construction phase	Pre-construction phase	CCBER project manager and CPD planner
CP-Mitigation-BIO-2	Implementation of GEO-1 would reduce potentially significant impacts from erosion and sedimentation from stairway construction.	Incorporated into Contract Documents and all Construction Documents (building specifications and Plans.)	Construction Contractor	Pre-Construction and Construction Phases	Pre-Construction and Construction Phases	CCBER and D&CS Project Manager and Inspector
LI-Mitigation-BIO-1	All known locations of sensitive species shall be flagged and surveys shall be conducted prior to any disturbance activities in order to locate other potential sites	CCBER biologist will flag sensitive species and provide a qualified biologist to give an orientation meeting to construction workers	CCBER in coordination with planners from CPD	Pre-construction phase	Pre-construction phase	CCBER project manager and CPD planner

Cultural Resources
Project Generated Mitigation Measures:

Number	Measure	How Implemented	Implementer	Phase Implemented	Phase Monitored	Who Monitors
Mitigation-	A professional archaeologist shall be	Incorporated	CCBER will	Site preparation	Site	CCBER and

CUL-1	onsite monitoring the construction during the entire excavation period of the asphalt pad and creation of the back dune swale.	into Contract Documents and all Construction Documents (construction specifications and Plans.)	hire a qualified archaeologist to monitor construction, archaeologist will monitor construction activities	and construction phases	preparation and construction phases	D&CS project managers
Mitigation-CUL-2	The asphalt pad shall be removed with a jackhammer or by hand; no heavy equipment shall be used. The sand that is removed from the back dune swale creation site shall be spread over the cultural site. After appropriate documentation has occurred, the site shall be covered with sand native to the site and re-vegetated with native plants	Incorporated into Contract Documents and all Construction Documents (construction specifications and Plans.)	Archaeologist will inform construction contractor to notify UCSB project managers in the event an archeological resource is encountered	Site preparation and construction phases	Site preparation and construction phases	CCBER and D&CS project managers
Mitigation-CUL-3	If any unanticipated archaeological artifacts are uncovered during excavation, such work shall be stopped immediately, and a qualified archaeologist (not affiliated with UCSB) shall be consulted to assess the nature, extent, and possible significance of the artifacts. Their ultimate disposition shall be based on the opinion of the qualified archaeologist and shall include consultation with an authorized Chumash representative.	Incorporated into Contract Documents and all Construction Documents (construction specifications and Plans.)	Archaeologist will inform construction contractor to notify UCSB project managers in the event an archeological resource is encountered	Site preparation and construction phases	Site preparation and construction phases	CCBER and D&CS project managers
Mitigation-CUL-4	If human remains are discovered, all work shall be stopped immediately and the County Coroner shall be notified	Incorporated into Contract Documents and	Archaeologist will inform construction	Site preparation and construction	Site preparation and	CCBER and D&CS project managers

	within 48 hours. There shall be no further disturbance to the site where the remains were found. If the remains are Native American, the coroner is responsible for contacting the Native American Heritage Commission within 24 hours. The Commission shall immediately notify those persons it believes to be most likely to be descended from the deceased Native American.	all Construction Documents (construction specifications and Plans.)	contractor to notify UCSB project managers in the event an archeological resource is encountered	phases	construction phases	
Mitigation CUL-5	A monitoring report documenting the findings and results of the project shall be completed by the archaeologist and submitted to Central Coast Information Center upon completion of the monitoring period and all associated activities.	Incorporated into Contract Documents and all Construction Documents (construction specifications and Plans.)	A qualified archaeologist hired by CCBER will prepare a monitoring report	Post construction	Post construction	CCBER project manager, planner from CPD

Geology & Soils Project Generated Mitigation Measures:						
Number	**Measure**	**How Implemented**	**Implementer**	**Phase Implemented**	**Phase Monitored**	**Who Monitors**
GEO-1	The following grading and erosion control practices shall be included in the proposed project's erosion control plan and be implemented at the project site for the entire duration of construction.					
	a. If grading occurs during the rainy season (November through March), sediment traps, barriers, covers or other methods shall be	Incorporated into Contract Documents and all Construction	Construction contractor	Site preparation and construction phases	Site preparation and construction	CCBER and D&CS project managers

	used to reduce erosion and sedimentation. b. A site-specific erosion control and landscape plan shall be prepared for all new construction. c. Excavated materials shall not be deposited or stored where the material can be washed away by high water or storm water runoff. d. Grading operations shall be conducted so as to prevent damaging effects of sediment production and dust on site and on adjoining properties. e. Exposure of soil to erosion by removing vegetation shall be limited to the area required for construction operations. The construction area shall be fenced to define project boundaries. f. Temporary mulching, seeding, or other suitable stabilization measures shall be used to protect exposed areas during construction or other land disturbance activities. g. Sediment traps, silt fences, straw bales, or other similar sediment control measures shall be installed before clearing and grading operations begin.	Documents (construction specifications and Plans.)			phases	

Hydrology and Water Quality
Project Generated Mitigation Measures:

Number	Measure	How Implemented	Implementer	Phase Implemented	Phase Monitored	Who Monitors
Mitigation-HYD-1	Implementation of GEO-1 will reduce potential impacts to water quality from erosion and sedimentation.	Incorporated into Contract Documents and all Construction Documents (construction specifications and plans.)	Construction contractor	Site preparation and construction phases	Site preparation and construction phases	CCBER and D&CS project manager
Mitigation-HYD-2	Equipment and fluid staging areas shall be located at least 100 feet from the lagoon. Spill containment kits shall be located in the equipment staging storage areas. Sediment spoils and dewatering areas shall be located in upland areas well away from the lagoon and stands of native vegetation. Concrete washout areas shall be located in a designated containment area.	Incorporated into Contract Documents and all Construction Documents (construction specifications and plans.)	Construction contractor	Site preparation and construction phases	Site preparation and construction phases	CCBER and D&CS project managers

Noise
Project Generated Mitigation Measures:

Number	Measure	How Implemented	Implementer	Phase Implemented	Phase Monitored	Who Monitors
Mitigation-NOISE-1	To minimize the effects of construction-related noise impacts to surrounding buildings the timing of construction activities that would result in noise levels that would cause indoor noise levels to exceed standards (52 dbA indoor) (i.e.	Incorporated into Contract Documents and all Construction Documents (construction	Construction contractor in coordination with CCBER and D&CS project	Site preparation and construction	Site preparation and construction	CCBER and D&CS project managers

	heavy equipment use for site grading and demolition, etc.) shall be coordinated with the Department Management Services Officers of affected Departments. The purpose of this coordination is to, if necessary, facilitate actions that will minimize the effects of peak construction noise impacts. These actions may include, but are not limited to: alerting adjacent campus building managers and/or occupants of the construction schedule, scheduling construction/demolition activities to occur when classes are not in session; temporarily rescheduling classes; or providing alternative meeting locations for classes that are adversely affected by construction activities.	specifications and plans.) Construction contractors shall adhere to department scheduling constraints during the construction phase.	managers			
Mitigation-NOISE-2	The Design and Construction Services project manager and the Department Management Services Officers of affected Departments shall be provided with the name(s) and phone number(s) of the construction site foreman or other individuals who have the authority to respond to complaints regarding excessive noise or vibration levels.	Information shall be provided to the CCBER or Design and Construction Services project manager in contract specification documents The project manager's contact information (name and	Construction contractor in coordination with CCBER and D&CS project manager s	Site preparation and construction	Site preparation and construction	CCBER and D&CS project managers

		phone number) shall be posted on-site to address complaints				
Mitigation-NOISE-3	Stationary construction equipment that results in noise levels in excess 65 dBA shall be located as far away from noise sensitive receptors as possible. If required to minimize potential noise conflicts, the equipment shall be shielded from noise sensitive receptors by using temporary walls, sound curtains or other similar devices.	Incorporated into Contract Documents and all Construction Documents (construction specifications and plans.)	Construction Contractor in coordination with CCBER and DC&S project managers	Pre-construction phase	All construction phases	CCBER and DC&S project managers

Transportation and Traffic Project Generated Mitigation Measures:						
Number	**Measure**	**How Implemented**	**Implementer**	**Phase Implemented**	**Phase Monitored**	**Who Monitors**
Mitigation-TRF-1	Coordination shall occur between the project manager and Campus Emergency Services at least one week prior to commencement of construction to identify feasible alternative routes for emergency vehicles. A traffic control person shall be onsite to direct traffic during the heavy equipment phase of the project. Signage shall be posted at the project perimeters alerting pedestrians and bicyclists to the nature and anticipated duration of the project. With implementation of these measures, the impact would be less than significant.	Incorporated into Contract Documents and all Construction Documents (construction specifications and Plans.)	Construction contractor in coordination with CCBER and D&CS project managers	Signs shall be posted prior to construction activities	All construction phases	CCBER and D&CS project managers shall perform site inspections to ensure compliance.

Exhibit 3b - Mitigation Monitoring Reporting Program